This commentary on the celebrated satire of the Woofen-poof is from Cuthbert B. Fraser, aka Augustus C. Fotheringham, regarding the whole creation and presentation that he did in collaboration with Prof. Lester W. Sharp of the Cornell University Department of Botany. The typescript is dated February 20, 1928, soon after the first publication and public seminar.

The provenance of the document appears to be via Prof. John Einset, Department of Pomology, NYSAES, Cornell University. This photocopy came directly from Dr. Martin Goffinet, Department of Horticulture. Einset got his PhD in cytology (presumably with Sharp) in 1942 and was on the faculty in Geneva until 1973.

From the files of
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Bulletin No. 1 To all founder members

A FEW WORDS OF EXPLANATION

Several "Founder Members" of the "Eoornis Institute of America" have asked me to tell them how the Monograph on Eoornis came to be written and to explain some of the contents of the book. Since originally there was no intention of writing a "Monograph" at all, the early history of the undertaking is largely personal and I trust that the personal nature of part of what follows will be excused in recognition of this fact.

HISTORICAL

The beginning of the whole thing was a radiator ornament which I designed and had cast for my car. This was the bird which we later named "Eoornis" and of which the best photograph appears on page 7 of the Monograph. The work on the bird was started in August 1926. In October of that year, I happened to take a ten-day automobile trip through the Adirondacks with a friend of mine, Dr. L. W. Sharp, who is a professor of Cytology in the Botany Department at Cornell University. I showed him the bird and he was so much amused at its appearance that he suggested writing a short burlesque life history of it which we could send to a mutual friend of ours, then studying abroad. A immediately fell in with the idea. I have always felt that scientific theses were a fertile field for satire, although the audience for such satire is probably limited.

So in the evenings, at the little country hotels in the Adirondacks, we wrote some twenty-five pages of what later became the Monograph. The thing grew as we worked on it. The first thing we knew we were taking photographs in the Adirondacks to illustrate parts of the story. Then followed the idea of making slides from the photographs and giving the whole thing as a lecture at one of the meetings of the Cornell Botanical Department which were customarily held every month during the college year.

All of this took time, however, and it was not until after finishing the trip, that the manuscript proper was completed -- Dr. Sharp writing some of the sections which remained to be done and I writing the others. We worked together throughout the whole job until now, after many revisions and refinements, it is impossible to say which parts were written by Dr. Sharp and which by myself. My imagination probably supplied most of the impossible ideas, but his scientific knowledge was necessary in order to obtain the subtle perversion of facts by which our statements were supported.

The next thing was to get a complete set of photographs - the ones we took in the Adirondacks were not nearly enough. This was entirely Dr. Sharp's work. He is an expert photographer, and I think you will agree with me, when later on you read the explanations of what some of the photographs really are. After we had all the photographs we needed, the slides had to be made - a big job in itself. Dr. Sharp made them all himself and I may say that the screen appearance of the slides is definitely better even than that of the illustrations in the printed Monograph. The whole job was completed in the early part of December. At the next regular meeting of the Botany Department it was announced that the speaker was to be a Professor A. C. Fotheringham of New Zealand. No indication was given in the announcement that there was anything fake about the lecture and, as a matter of fact, instead of being merely a Departmental Meeting of the Botany Department, it turned out to be a meeting of all the professors, instructors and graduate students of the various Biological Departments in the University. I began to get cold feet. However, I went down, donned a false beard to give me a properly professorial appearance and delivered the lecture with the aid of Dr. Sharp handling the slides. It lasted an hour and twenty minutes and was a complete success. I found out afterwards that quite a number of the audience had failed to realize that the lecture was a fake until right near the end.

In the meantime, my good friend Mr. Haugh (now worthy President of the Institute) heard about the stunt and spoke of it to friends at the Automotive and Radio Conventions. The joke apparently took hold, and after having me give the lecture or parts of it several times, he said that I ought to have it printed. I agreed to this, without in the least realizing what a job it was. It has taken nearly a year to complete the thing. As usual, it turned out to be far more expensive than had been anticipated, and had it not been for the financial support realized through the "Eoornis Institute of America", it is doubtful whether the job would ever have been carried through.

THE MONOGRAPH

Being a burlesque of a scientific thesis, the Monograph had to be produced in thesis form. This is the reason for the appearance of the book as you have it. It is an exact reproduction of a scientific thesis, correct to the last detail of make-up and typography. Normally, a thesis would have a bibliography at the back. Fortunately, we were saved the necessity of inventing a bibliography due to the fact that Eoornis was an unknown organism and, therefore, no books had previously been written about it.

The entire work is imaginary from start to finish - but imaginary in this sense: that while no one organism ever could display <u>all</u> the scientific features ascribed to Eoornis, these features are actually

true - or nearly so - of some organisms. The burlesque lies in the careful mis-statement of scientific fact, and appreciation of the burlesque presupposes an understanding of what the real facts should be. Naturally, this makes it very hard to explain many of the best jokes. By the time the necessary biological facts have been stated, the savor of the joke contained in our mis-statement of these facts has been lost. Furthermore, it added immensely to the labor of producing the work because the facts in various sections had to be correlated properly in order to give the whole thing some semblance of hanging together.

With this in mind, you will appreciate the impossibility of explaining all the jokes. There are, however, some things that can very easily be explained and which may possibly add to the reader's enjoyment.

THE ILLUSTRATIONS

First among these are the illustrations. Only three of the illustrations are what they are stated to be. I give herewith a list of all the illustrations, together with an explanation of what they really are:

Fig. 1---This was the motor equipment for the French Citroen Tractor Expedition across the Sahara Desert.

Fig. 2---A bona-fide reproduction of a map of China.

Fig. 3---A small lake in the Adirondacks.

Fig. 4---The top of Mount Marcy in the Adiorndacks.

Fig. 5--- The bird was drawn by Dr. Sharp on a piece of shale rock and then photographed. The cracks in the rock were produced by marking the negative.

Fig. 6---The amulet was made out of a picture hanger, a thumb-tack, some putty and some red paint, the whole thing being varnished. It really looked ancient when we got it done and created no suspicion when handed around to the scientists at the meeting.

Fig. 7---This is a composite photograph made by super-imposing negatives. The upper part is an actual photograph of the Dolomites in Austira; the lower part is a view of the foothills of Mt. Rainier. Dr. Sharp's skill in photography is well illustrated here. Can you trace the line of Juncture?

Fig. 8---An inspiring view of myself entering a cave among some rocks in the Adirondacks. The propriety and usefulness of a picture such as this in a scientific thesis will, of course, be obvious.

Fig. 9---Photograph of a cast iron Doornis on a cast iron pinnacle. The smoothness of the surface of the casting caused us some trouble in arranging for a convincing scientific explanation.

Fig. 10---A graph made specially for the purpose by myself.

Fig. 11---A bona fide photomicrograph of a cross-section of a Lyginodendron (fossil fern), taken from material in the Cornell Botany Department. But the black mass which we label as being the beak was really nothing but a spot on the slide.

Fig. 12---Fern Glen Canyon, located, I believe, in Arizona.

Fig. 13---Myself standing under the ranger's tripod on the top of Noonmark in the Adirondacks. The heliographic seleniometer (which we carefully avoided showing in detail) consisted of a small frying pan and a bottle of giner ale. At the time the photograph was taken, it was blowing a fifty-mile gale and the temperature was about 15 above zero. Standing still with one's coat off was no joke!

Fig. 14---A composite made by combining drawings of the forepart of a crustacean, middle part of a water beetle and the rear part of a wasp, the whole then being photographed. The anatomy of this insect is calculated to puzzle almost any entomologist.

Fig. 15---Ammonites. Probably the most common of all fossils. They were a prehistoric shell-fish and would be recognized almost immediately by every biologist.

Fig. 16---The Boornis casting resting on a branch of the Ginkgo tree. There is really such a thing as the Ginkgo tree. Its common name is the Maiden Hair Fern Tree and it is native to China. The branch came from the Cornell Herbarium. The bird was suspended by a thread. This was also a ticklish job of photography, but quite convincing when completed, with the possible exception of a little stiffness in the bird's feet.

Fig. 17---Pisolites - a kind of rocky pebble formed in certain caves by the seepage of water from the roof.

Fig. 18---A botched negative. There is, actually, absolutely nothing on this plate at all. The original idea was to have it totally black, but we felt that the ruined negative would be a little more puzzling. It was very interesting to see the scientists at the lecture attempting to distinguish the two jaws, the eye, and the other features which I pointed out on the screen with such assurance and speed. We flashed that slide off quite quickly.

Fig. 19---In the Zoology Department at Cornell there is a huge stone showing impressions of an actual dinosaur's feet. Dr. Sharp took wet clay and secured a model of one of the impressions. When the clay dried, he took some more clay and laid out a flat slab of it, then using his clay foot he marked the dinosaur's tracks just where he wanted them. The egg impressions were made with a ball, in the same manner. When the slab had dried, it was photographed in a strong sidelight. Another piece of excellent photography. You can even see the ginkgo leaf if you look closely.

Fig. 20---A drawing by Dr. Sharp. Anatomically it will bear the closest inspection, being correct in every detail with the single exception of the fact that no such organism ever existed.

Fig. 21---The cast iron Boornis placed on a glass plate and moved while being photographed from above.

Fig. 22---Actual drawings by Dr. Sharp. The cytological discussion is probably the most involved of any in the book and I will only say this: that there is nothing in the least impossible about the drawings. They look exactly like a thousand drawings of similar objects.

Fig. 23---A smudged photograph secured by moving the camera during exposure.

Fig. 24---A good photograph secured by leaving the camera alone. In both this Figure and Figure 23, the cast iron bird was used on top of a glass plate.

Fig. 25---Hershey Chocolate Buds with the silver foil still on them and the little paper tags pulled out as far as they would go.

Fig. 26---A photomicrograph of the fruiting bodies of a fungus. The cysts of Palaemonoblepharis would probably have looked just like this, if there had been such a thing as Palaemonoblepharis and if it produced cysts.

Fig. 27---The carloadings of four railroads for five years altered here and there to suit scientific needs. If we had spent a week drawing a graph, we could not have gotten anything more perfect than this chance diagram which came to my desk at the factory from some statistical organization.

Fig. 28---The birds drawn in pencil on an illustration in the National Geographic, the whole thing then being photographed and reduced. On the screen, the illusion of flight was absolutely perfect.

Fig. 29---The cast iron Boornis between two piles of flies, wasps and other insects laboriously collected in the Hamp's attic. The stiff appearance of the insects may be attributed to rigor mortis.

Fig. 30--A double photograph. Eoornis superimposed on a view in the Alps.

Fig. 31--Peppermint and Lime Life Savers.

Figs. 32 and 33-Photographs of a postcard from New Zealand depicting a bona fide restoration and actual skeleton of a moa (large extinct bird like an ostrich) in one of their museums, compared with a human skeleton.

Fig. 34--This is not merely the reproduction of a nightmare, but conforms closely to the most authoritative restoration of actual Pterodactylus fossils. A Palaeontologist would be the last one to question the authenticity of this drawing.

Fig. 35--Photograph of the surface of Mrs. Sharp's lizard-skin handbag, in a strong sidelight.

Fig. 36--An electrotype of of the original halftone for Fig. 35, printed upside down.

Fig. 37--A Japanese text taken from a lantern. There is considerable difference between Japanese and Chinese writing.

Fig. 38--The Lion's Head rock in the Adirondacks.

THE SCIENTIFIC NAMES

The next things which will probably be of interest are the explanations of the meanings of the scientific names. With one or two exceptions, these have been built up in strictly conventional scientific manner and are perfectly all right except that they are all imaginary, barring only Ginkgo biloba, which is the true scientific name for the Maiden Hair Fern Tree. A translation of the meanings of these names is given herewith:

Eoornis Pterovelox Gobiensis-- The ancient swift winged bird of the Gobi Desert.

Fugifex pungens -- Pungent fugifex. The latter is an exception to the general procedure, in that it is an arbitrarily built-up word. Very euphonius, however.

Micropteron asiatica -- The small winged Asiatic bird.

Ginkgo biloba -- The two lobed Ginkgo. The "lobed" refers to the leaves of the Ginkgo or Maiden Hair Fern Tree. The shape of this leaf is shown in the press mark on the middle of the front cover. I do not know what the derivation of the word "Ginkgo" is beyond the fact that it is the real scientific name for the Maiden Hair Fern Tree. The trees are met with fiarly frequently in Botanical Gardens, Parks and Private Gardens all over the United States.

Palaeolumbricus dubius -- The doubtful ancient worm. "Dubious" seemed also to be a very appropriate specific name for this organism.

Lepidosaurus obscurus -- The obscure scaly lizard. "Obscurus" seemed an appropriate scientific name. Many of the well-known fossil reptiles had the scientific name of "Lepidosaurus".

Pterodactylus avioancestricus -- The pterodactyl who was the ancestor of birds. "Pterodactylus" is a recognized genus of fossil flying reptiles - but we know of no species which could claim to be the ancestor of birds. It is a plausible idea, however.

Ascaris megalocephala, Lilium Martagon, Drosophila melanogaster and Zea Mays -- These are the scientific names of a number of organisms which have furnished the material for many very important cytological studies and are landmarks to every student of cell structure.

Palaeomonoblepharis endosymbiotica -- The ancient single-tailed symbiotic organism. This is a tough one to translate. "Blepharis" refers to the waving fin or tail which certain uni-cellular organisms have. "Symbiotic" organisms are organisms which live together to their mutual benefit, as, for instance, the lichens, which are made up of a fungus and an laga. "Endo" refers to the fact that one of the organisms lived inside, the other organisms to which it held the symbiotic relationship - a state of affairs not known to exist other than in Eoornis.

Ornithorynchus paradoxus -- The bona fide scientific name for the Australian duckbill platypus.

Pterodactylus, Archaeopteryx, Stegosaurus ungulatus -- Names of genera or species of real prehistoric reptiles.

A FEW POINTS FROM THE TEXT

A few of the highspots in the actual text can be explained, but, as stated above, for many of them the explanation would be too long-winded to be enjoyable. I can only try to show how flagrant some of the worst of these cases really are.

Wemyss-Cholmondeley (Page 1) is a typical, double-barreled English name. It is pronounced as if it were spelled Weems-Chumly. Bart stands for Baronet - hereditary title of "Sir".

None of the foot-notes under nomenclature and history (Pages 2-5) ARE TRUE. There is such a book as Systema Naturae written by Linnaeus, but there is nothing about Eoornis on Page 473. The Teheran Oologist is sheer invention. There is no such magazine. Translated, the name would mean "The Teheran (city in Persia) Egg Student". The same thing applies to M. Terrassier. There was a Roman historian of the name of Eutropius, but Book 7 contains nothing about Eoornis. Neither does Marco Polo's 2nd volume on his travels.

Thank-god Pillsbury is another invention, although to my mind the name is so good he really ought to have lived, even if he didn't.

The Gobi Desert (Page 6) is well known, but whether there are any dolomitic cliffs or any oases with Maiden Hair Fern Trees as the chief vegetation are points about which I am totally ignorant. It merely seems reasonably probable that there might be - and few, if any, of our readers will have been there to see.

Wing-beat Spud (Page 8) -- It was quite difficult to construct a reasonable method of flight, or of support when standing still, for a bird having the anatomical structure of Eoornis. Hence the reason for the careful statements about the speed of the wing beat.

The heliographic seleniometer (Page 9) is another invention of my own. The name would indicate that it was an instrument which measured by means of selenium cells in conjunction with light from the sun. That is about as far as I would like to go in describing the exact nature of the mechanism. I never made one.

Parthenogenesis (Page 11) is the scientific term for reproduction from non-fertilized eggs. As a phenomenon it is not known to occur in any but very primitive organisms and naturally is entirely out of order for such an advanced organism as a bird.

Geodes (Page 12) are formations found in limestone rocks resulting from the seepage of water carrying minerals. The formation is roughly egg shaped and may be anywhere from one inch to several feet across. It is hollow inside and the inner surface is frequently lined with mineral crystals, of which amethysts are the most common.

Monkeys (Page 14) exist in China, but boa-constrictors certainly do not

Anatomy (Page 14) -- That sentence beginning "A study of the eyes" may be translated roughly as follows: "The eyes are composed of from 50 to 170 thirteen-sided prisms with unequal angled facets". Just how such an arrangement could reflect the light from the beak and just why it should serve as a substitute for the reflex action (which all animals show) are questions left to the reader's conjecture.

The Wing Muscle Arrangement (Page 15) is unique, but something had to be done to give the bird a reasonable chance of developing a wing-beat speed up in the thousands per second. Any many animal tissues show air spaces, although, not as far as is known, for cooling purposes

Cytology (Page 17) -- I will not attempt to explain this. The section was written almost entirely by Dr. Sharp, and I have doubts as to whether he understands all of it himself. In general, you can take it that the cytological situation described is such as to leave any scientisit acquainted with these phenomena in a perfect maze. None of the statements are actually impossible, but the combined result is simply hopeless confusion.

The idea of a Symbiotic Relationship (Page 20) is not at all new, although so far as I am aware none of the higher organisms exhibit this phenomenon.

Roughly speaking "pH" value means acidity (Page 21) -- it is a complicated symbol much used by physiologists and it is the secret opinion of nearly all scientists who are not physiologists that the latter do not themselves know what it means. Physiologists are given to presenting impossibly complicated graphs, seeking to show therefrom conclusions intelligible, as a rule, only to themselves.

The idea of having both normal birds which are right-handed and albinos which are left-handed is original with us. (Page 22) -- The only organisms known to exhibit right and left-handedness are monkeys and men. The statement in reference to the diabetic disorder to which the birds are subject is an appalling mixture of physics and medicine, the full enormity of which can only be understood by physicists or doctors. It was just as well that we had not investigated ambidextrous birds in connection with this diabetic illness, since it would be rather difficult to forecast the symptoms which they might show.

The Psychological Experiment (Page 23) was actually suggested by a satirical statement attributed to Thomas Huxley, the famous English biologist, to the effect that the presence of lumbar and cerebral ganglia in prehistoric reptiles might possibly mean they could reason both a priori and a posteriori. A ganglion is a nerve center; a cerebral ganglion would be a nerve center in the head; a lumbar ganglion would be a nerve center in the backbone. Huxley's joke has long been a classic with biologists.

Footnote 11 (Page 24) - I hope the full enormity of this is appreciated.

The variation in the Vocal Note (Page 25), due to flying through air layers of different density, is probably the most atrocious misstatement of physical fact in the book. It was suggested by the well-known change of tone of a fire engine gong as the fire engine tears down the street away from the observer.

Taxonomy and Phylogeny (Page 26) -- This section has to do with the relationships of Loornis to other groups of organisms. It is hardly possible to explain all the statements to the layman. Suffice it to say that while some of them are perfectly reasonable, others are absolutely fantastic. The subject of relationships between organisms is one about which scientists are always quarreling among themselves. Each man has his own pet theory and frequently will defend it long after it has been shown to be totally impossible. The whole section is a take-off on this tendency in scientific papers.

Social and Moral Significance (Page 31) -- It is quite unusual to have such a section in a scientific paper. As a matter of fact, to do so produces a confusing mixture of philosophy and science.

The Chinese Foot-Note (Page 32) is really Chinese and was written especially for us by a Chinese graduate student at Cornell. It refers to the alleged Chinese characters of Figure 27 and translated would run roughly like this: "The nature of these characters is such that it is certain that they are of very ancient origin". At least that is what he told us when he wrote it. Maybe it says something quite different. We have never checked him up.

Peroration (Page 34) -- If this outburst of eloquence means anything at all (from a scientific point of view), I do not know what it might be - and I wrote it. All the references are fictitious.

CONCLUSION

The above covers a few of the high-spots. Nearly every line in the book contains some hidden meaning or some scientific mis-statement similar to those just given. To explain them all would take another book as long as the Monograph itself.

Perhaps what I have said will suffice to show that the Monograph is not a haphazard product of a moment's inspiration, but really involved a great deal of scientific knowledge, chiefly supplied by Dr. Sharp, and a lot of hard work, supplied by both of us. Whether the result was worth the time is a question which may well be asked, but from our viewpoint it certainly was, not only for the fun we got in doing it, but for the satisfaction in feeling that the job was well done.

C. B. Fraser
Alias, Augustus C. Fotheringham
Director of the Institute

February 20, 1928.